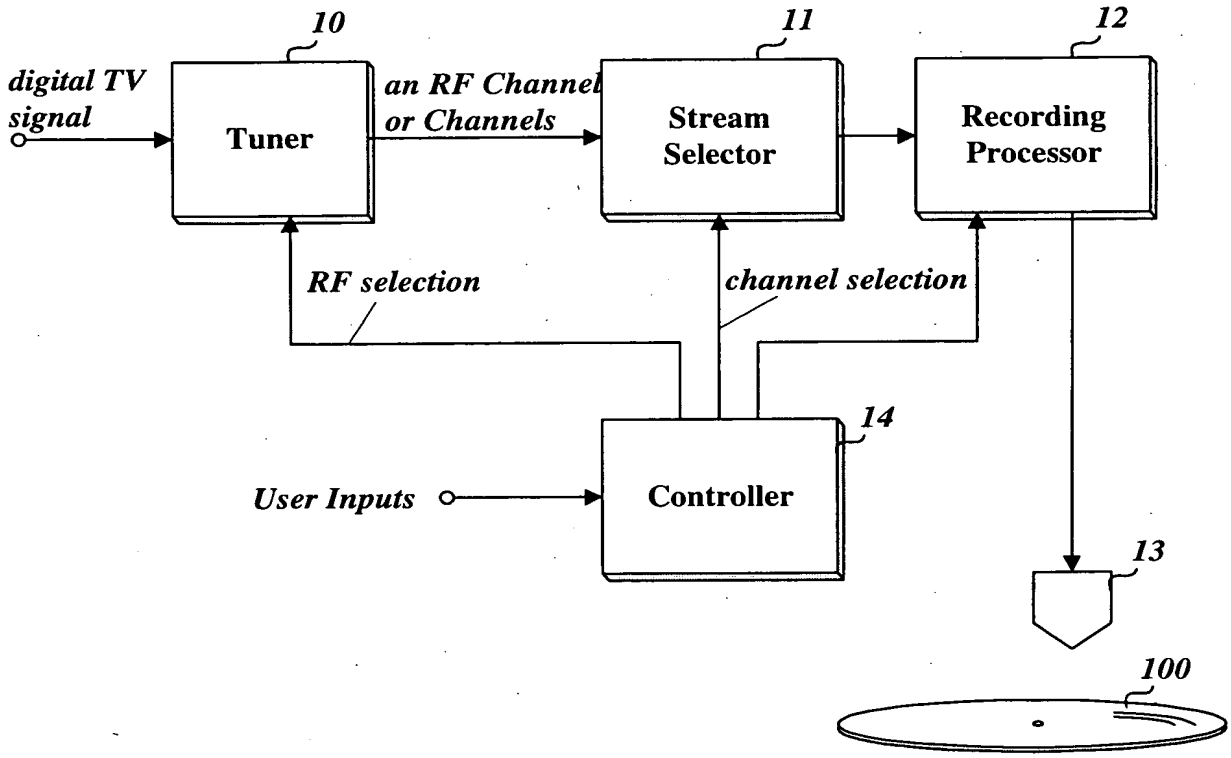
FIG. 1


10
11
12
digital TV signal
Tuner
an RF Channel or Channels
Stream Selector
Recording Processor
RF selection
channel selection
14
User Inputs
Controller
13
100

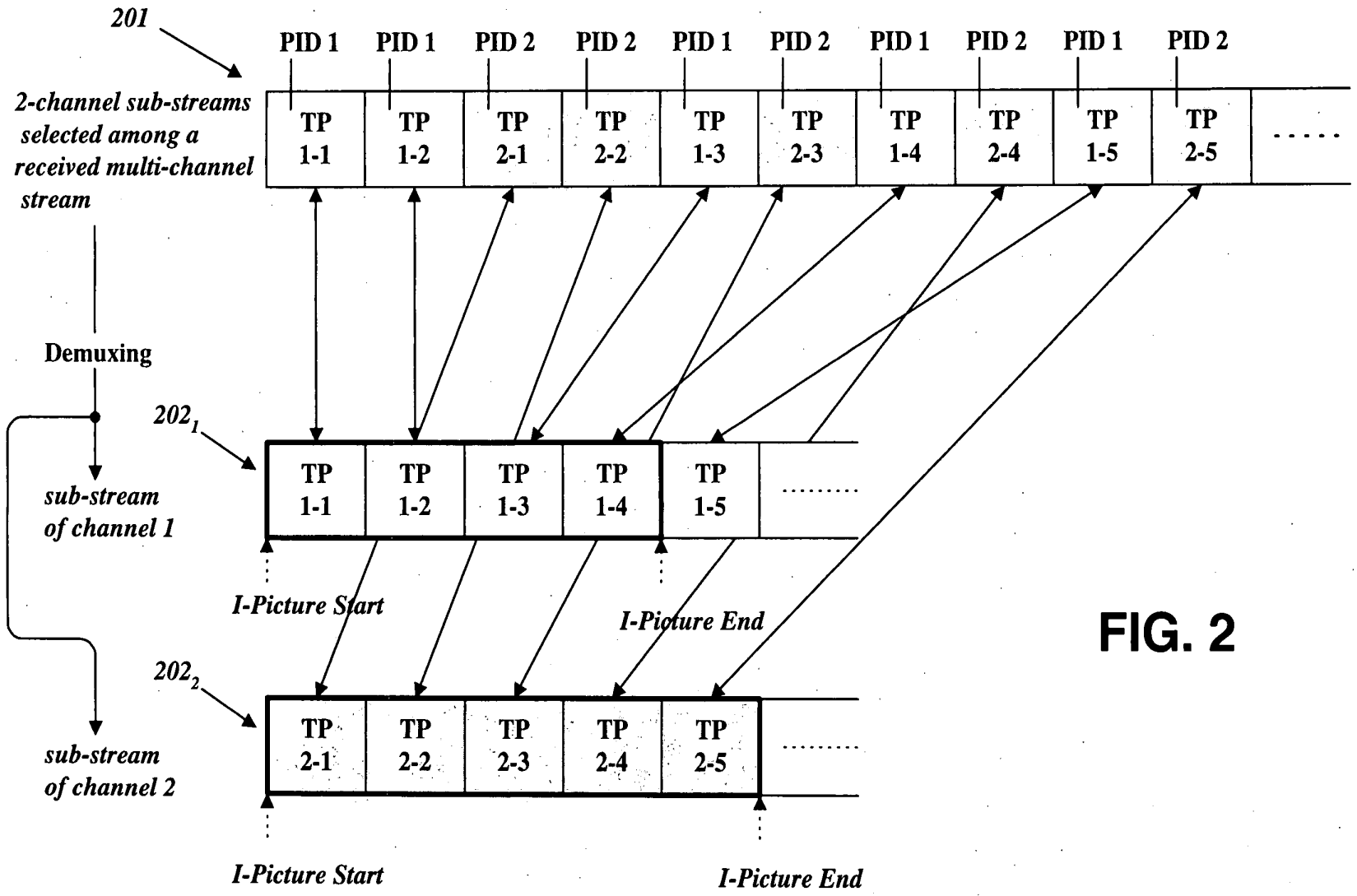

201
PID 1
PID 1
PID 2
PID 2
PID 1
PID 2
PID 1
PID 2
PID 1
PID 2
2-channel sub-streams selected among a received multi-channel stream
TP 1-1
TP 1-2
TP 2-1
TP 2-2
TP 1-3
TP 2-3
TP 1-4
TP 2-4
TP 1-5
TP 2-5
Demuxing
202₁
sub-stream of channel 1
TP 1-1
TP 1-2
TP 1-3
TP 1-4
TP 1-5
I-Picture Start
I-Picture End
202₂
sub-stream of channel 2
TP 2-1
TP 2-2
TP 2-3
TP 2-4
TP 2-5
I-Picture Start
I-Picture End

FIG. 2

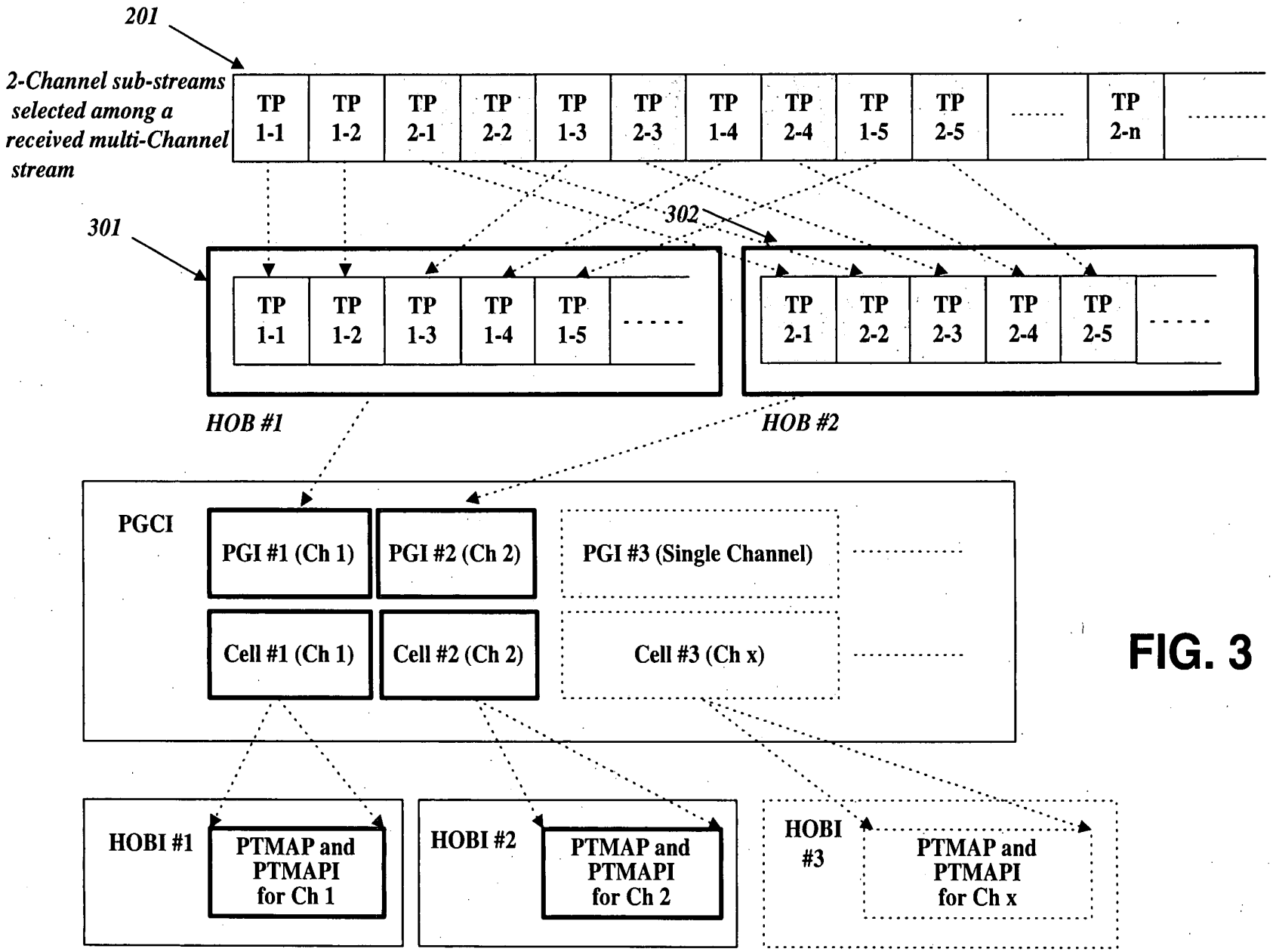

201
2-Channel sub-streams selected among a received multi-Channel stream
TP 1-1
TP 1-2
TP 2-1
TP 2-2
TP 1-3
TP 2-3
TP 1-4
TP 2-4
TP 1-5
TP 2-5
TP 2-n
301
302
TP 1-1
TP 1-2
TP 1-3
TP 1-4
TP 1-5
TP 2-1
TP 2-2
TP 2-3
TP 2-4
TP 2-5
HOB #1
HOB #2
PGCI
PGI #1 (Ch 1)
PGI #2 (Ch 2)
PGI #3 (Single Channel)
Cell #1 (Ch 1)
Cell #2 (Ch 2)
Cell #3 (Ch x)
HOBI #1
PTMAP and PTMAPI for Ch 1
HOBI #2
PTMAP and PTMAPI for Ch 2
HOBI #3
PTMAP and PTMAPI for Ch x

FIG. 3

FIG. 4

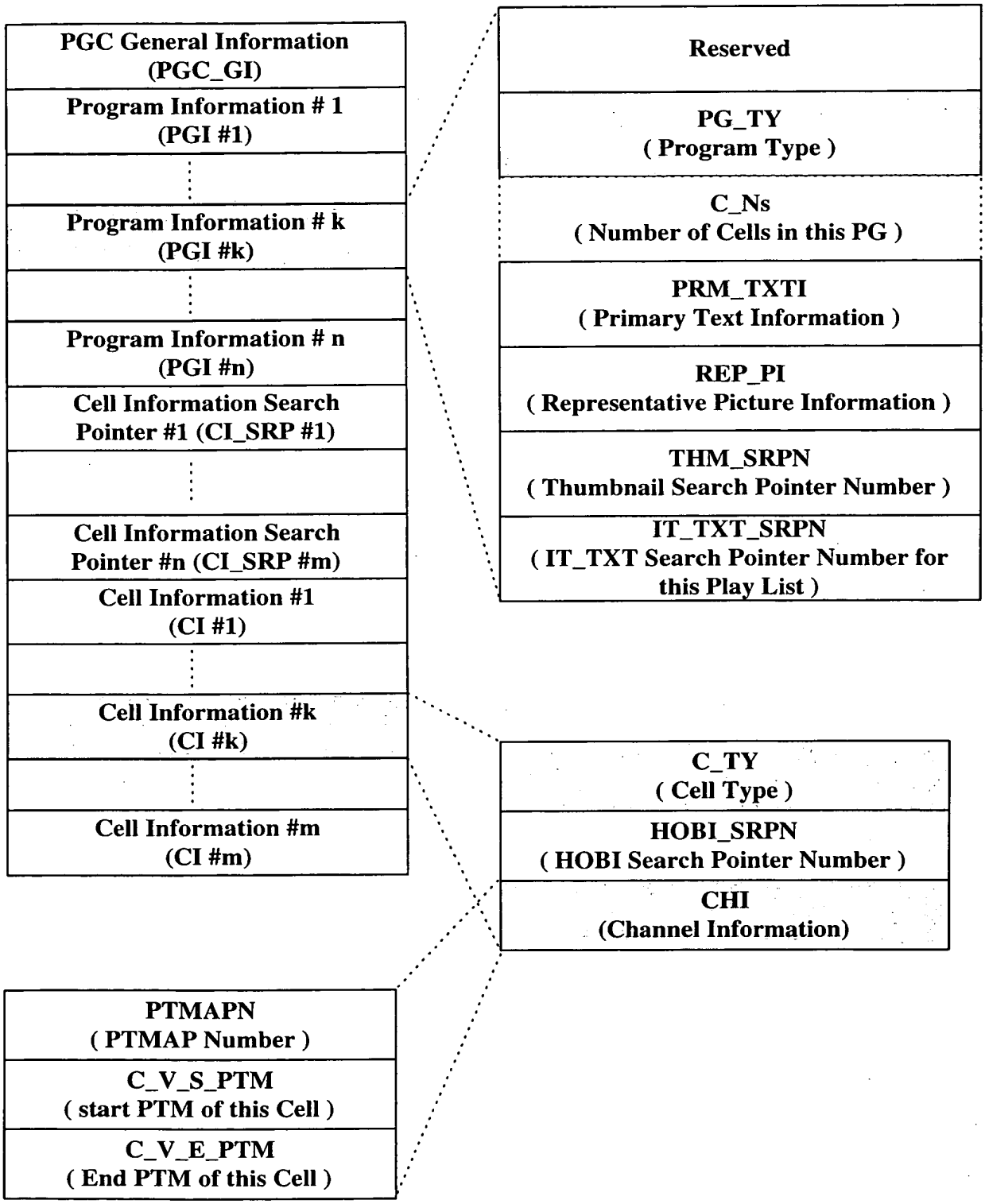
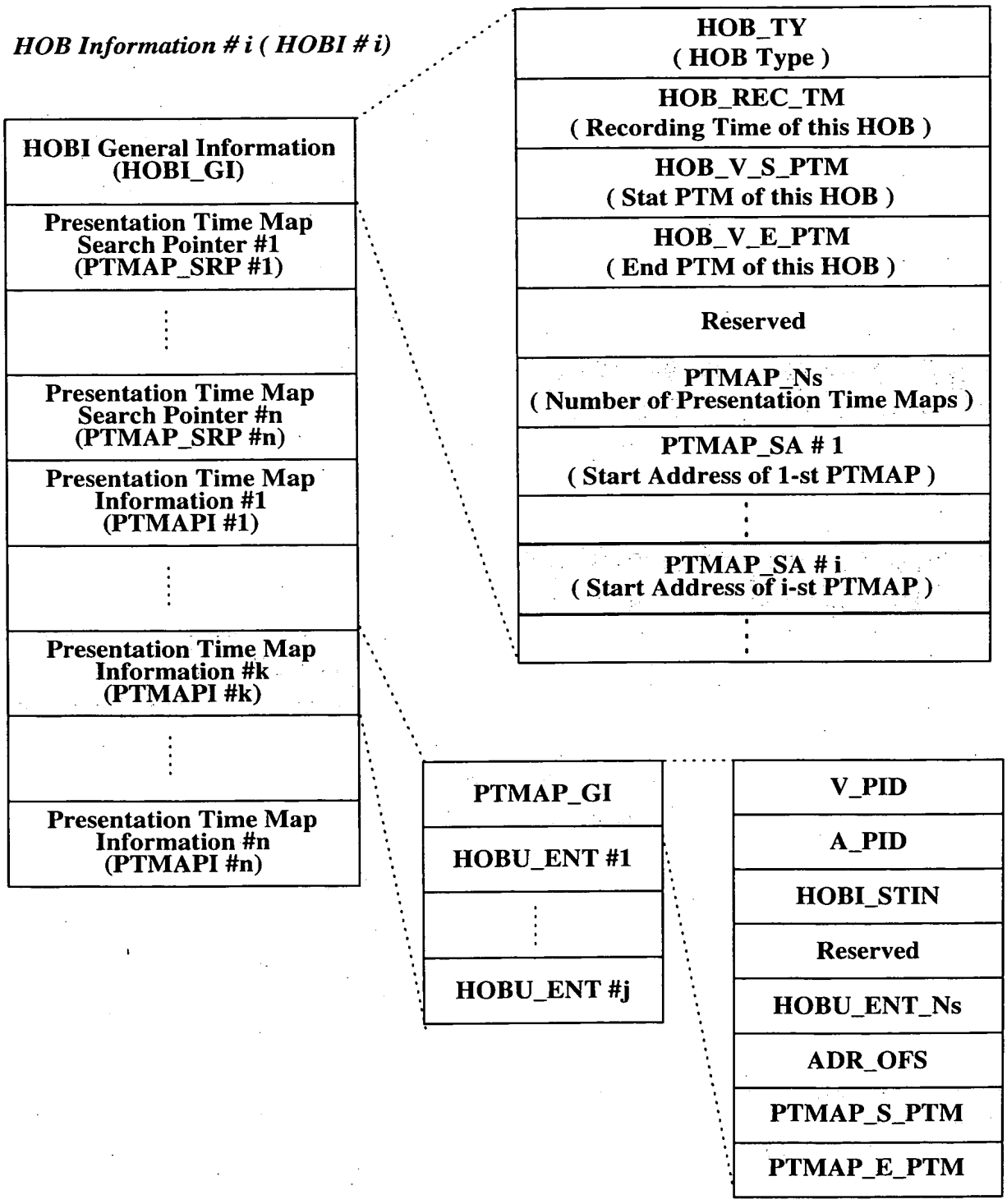

PGC Information # i (PGCI # i)
PGC General Information (PGC_GI)
Program Information # 1 (PGI #1)
Program Information # k (PGI #k)
Program Information # n (PGI #n)
Cell Information Search Pointer #1 (CI_SRP #1)
Cell Information Search Pointer #n (CI_SRP #m)
Cell Information #1 (CI #1)
Cell Information #k (CI #k)
Cell Information #m (CI #m)
Reserved
PG_TY (Program Type)
C_Ns (Number of Cells in this PG)
PRM_TXTI (Primary Text Information)
REP_PI (Representative Picture Information)
THM_SRPN (Thumbnail Search Pointer Number)
IT_TXT_SRPN (IT_TXT Search Pointer Number for this Play List)
C_TY (Cell Type)
HOBI_SRPN (HOBI Search Pointer Number)
CHI (Channel Information)
PTMAPN (PTMAP Number)
C_V_S_PTM (start PTM of this Cell)
C_V_E_PTM (End PTM of this Cell)

FIG. 5


HOB Information # i (HOBI # i)
HOBI General Information (HOBI_GI)
Presentation Time Map Search Pointer #1 (PTMAP_SRP #1)
Presentation Time Map Search Pointer #n (PTMAP_SRP #n)
Presentation Time Map Information #1 (PTMAPI #1)
Presentation Time Map Information #k (PTMAPI #k)
Presentation Time Map Information #n (PTMAPI #n)
HOB_TY (HOB Type)
HOB_REC_TM (Recording Time of this HOB)
HOB_V_S_PTM (Stat PTM of this HOB)
HOB_V_E_PTM (End PTM of this HOB)
Reserved
PTMAP_Ns (Number of Presentation Time Maps)
PTMAP_SA # 1 (Start Address of 1-st PTMAP)
PTMAP_SA # i (Start Address of i-st PTMAP)
PTMAP_GI
HOBU_ENT #1
HOBU_ENT #j
V_PID
A_PID
HOBI_STIN
Reserved
HOBU_ENT_Ns
ADR_OFS
PTMAP_S_PTM
PTMAP_E_PTM

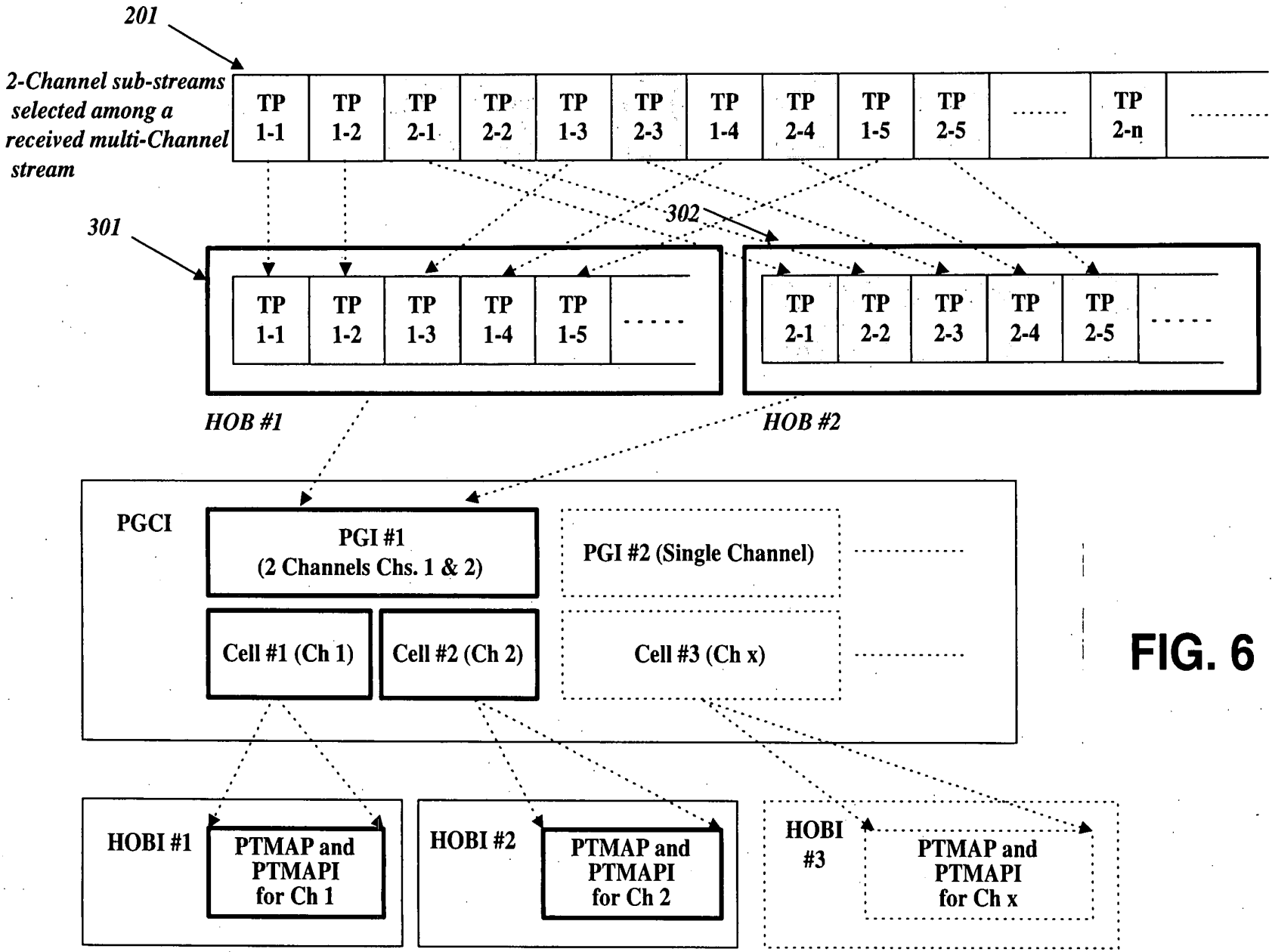

201
2-Channel sub-streams selected among a received multi-Channel stream
TP 1-1
TP 1-2
TP 2-1
TP 2-2
TP 1-3
TP 2-3
TP 1-4
TP 2-4
TP 1-5
TP 2-5
TP 2-n
301
302
TP 1-1
TP 1-2
TP 1-3
TP 1-4
TP 1-5
TP 2-1
TP 2-2
TP 2-3
TP 2-4
TP 2-5
HOB #1
HOB #2
PGCI
PGI #1 (2 Channels Chs. 1 & 2)
PGI #2 (Single Channel)
Cell #1 (Ch 1)
Cell #2 (Ch 2)
Cell #3 (Ch x)
HOBI #1
PTMAP and PTMAPI for Ch 1
HOBI #2
PTMAP and PTMAPI for Ch 2
HOBI #3
PTMAP and PTMAPI for Ch x

FIG. 6

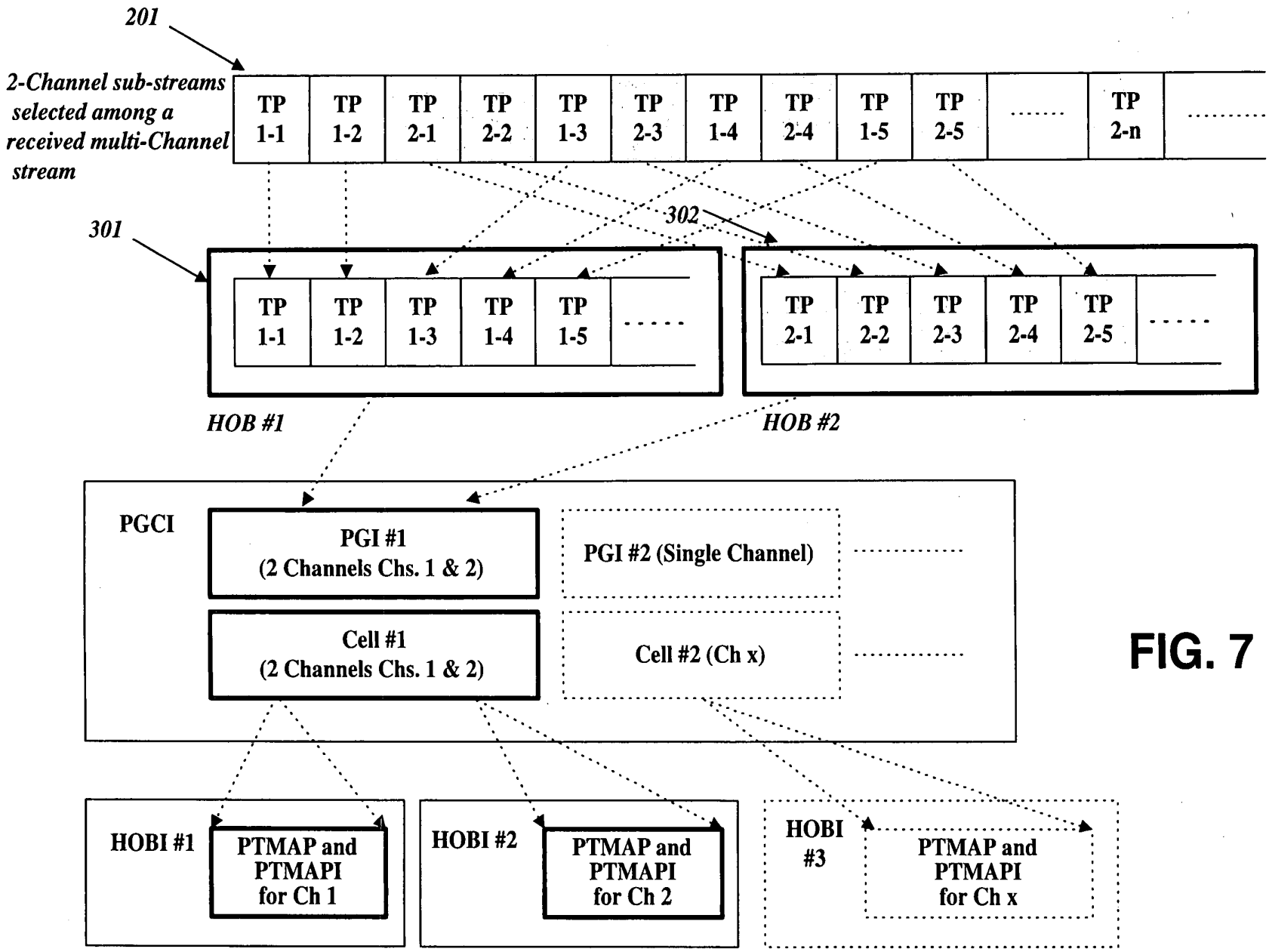

201
2-Channel sub-streams selected among a received multi-Channel stream
TP 1-1
TP 1-2
TP 2-1
TP 2-2
TP 1-3
TP 2-3
TP 1-4
TP 2-4
TP 1-5
TP 2-5
TP 2-n
301
302
TP 1-1
TP 1-2
TP 1-3
TP 1-4
TP 1-5
TP 2-1
TP 2-2
TP 2-3
TP 2-4
TP 2-5
HOB #1
HOB #2
PGCI
PGI #1 (2 Channels Chs. 1 & 2)
PGI #2 (Single Channel)
Cell #1 (2 Channels Chs. 1 & 2)
Cell #2 (Ch x)
HOBI #1
PTMAP and PTMAPI for Ch 1
HOBI #2
PTMAP and PTMAPI for Ch 2
HOBI #3
PTMAP and PTMAPI for Ch x

FIG. 7